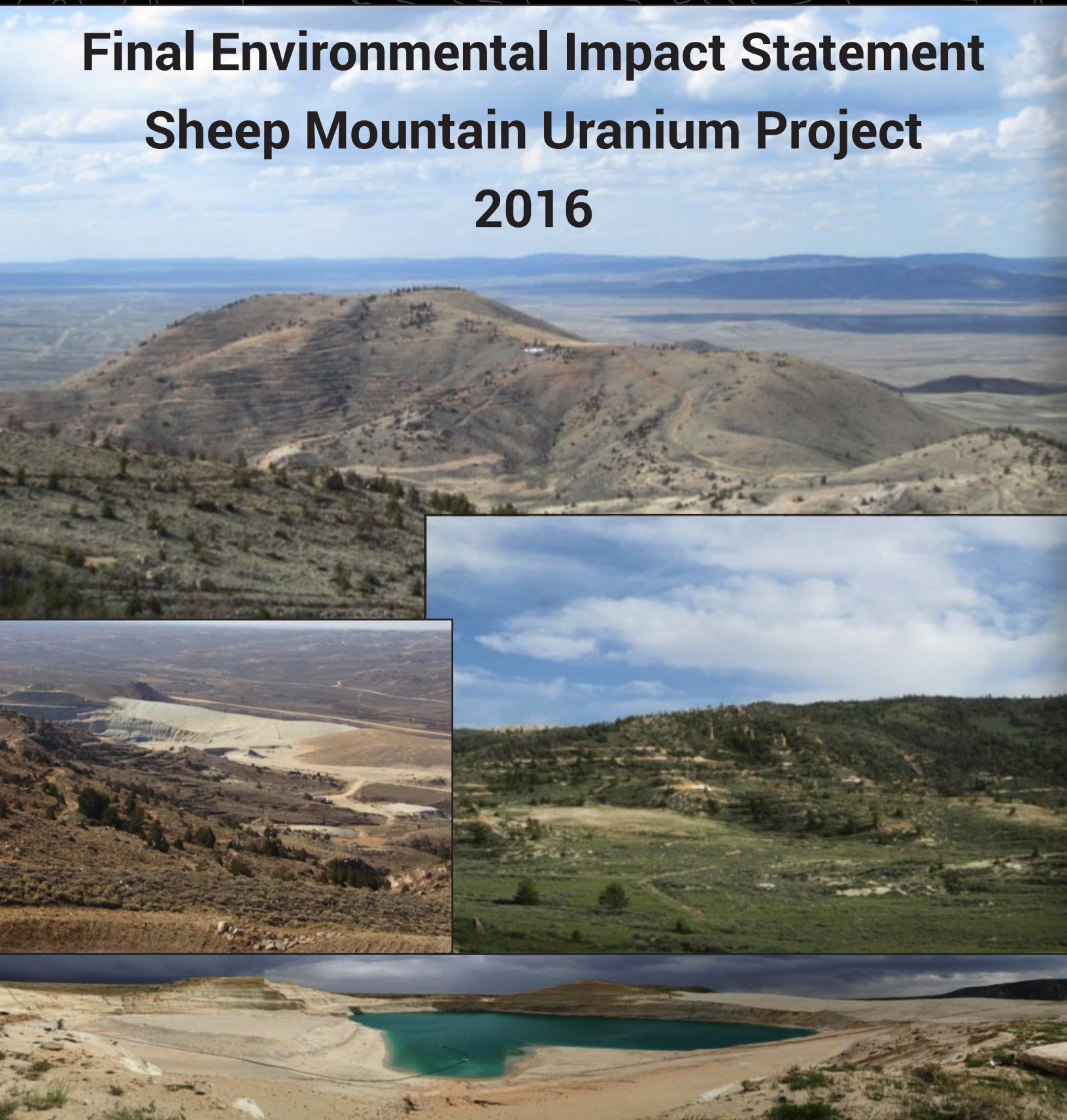
U.S. Department of the Interior
Bureau of Land Management

Lander Field Office - Wyoming

Final Environmental Impact Statement
Sheep Mountain Uranium Project
2016



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/WY/PL-16/012+1330

IN REPLY
REFER TO:

WYW168184
3809 (WYR050)

Dear Public Land User:

Enclosed is the Final Environmental Impact Statement (FEIS) for the Sheep Mountain Uranium Project in Fremont County, Wyoming. This EIS was prepared to analyze the potential impacts of a Plan of Operations submitted by Energy Fuels Resources (USA) Inc., a wholly owned subsidiary of Energy Fuels Inc., to develop mining claims. The Sheep Mountain Project Area (Project Area) is located near the geographic center of Wyoming and encompasses approximately 3,611 acres within the Crooks Gap/Green Mountain Mining District.

This FEIS analyzes three alternatives in detail: the No Action Alternative, the Proposed Action Alternative, and the BLM Mitigation Alternative. The BLM Mitigation Alternative is the BLM's preferred alternative. The FEIS also contains a discussion of other alternatives that were considered but eliminated from detailed analysis.

Under the Proposed Action, Energy Fuels would utilize conventional open-pit and underground mining methods to remove uranium. Uranium has been historically mined in the Project Area, beginning in the early 1950s. The Project would involve three principal phases: Construction, Operations, and Reclamation. Within the 3,611-acre Project Area, a maximum of 929 acres would be disturbed on the surface throughout the anticipated 20-year Project schedule. Surface disturbance would be reclaimed and facilities would be decommissioned following completion of the Project.

The BLM Mitigation Alternative consists of Energy Fuels' Project with modifications to reduce the environmental impact, meaning that in addition to Energy Fuels' applicant-committed mitigation measures, additional mitigation measures are recommended by the BLM to further lessen the environmental effects of the Project. Both the applicant-committed mitigation measures and the additional mitigation measures recommended by the BLM are listed in the FEIS.

Copies of the FEIS are available at the BLM Lander Field Office at the above address or at the following website:

http://www.blm.gov/wy/st/en/info/NEPA/documents/lfo/sheepmtn.html

This FEIS is not a decision document. The publication of the Notice of Availability (NOA) in the *Federal Register* for this FEIS initiates a 30-day waiting period. Following conclusion of that period, the BLM Authorized Officer will prepare and sign the Record of Decision (ROD) to disclose the BLM's final decision on Energy Fuels' Plan of Operations and any project Conditions of Approval (COA). Availability of the ROD will be announced through local media, the project mailing list, and posted on the project website.

The FEIS was prepared pursuant to the National Environmental Policy Act (NEPA), the Federal Land Management Policy Act (FLPMA), and other regulations and statutes. The BLM prepared the FEIS in consultation with cooperating agencies, taking into account public comments received to date. The Draft Environmental Impact Statement (DEIS) was published on January 16, 2015. A 45-day public comment period for the DEIS was held from January 16, 2015 to March 3, 2015. A summary of the written comments received during the public review period for the DEIS and responses to the comments are provided in Appendix 1-A to the FEIS.

If you wish to submit comments on this FEIS, we request that you make them as specific as possible, with references to page numbers and chapters of the document. Please refer to "Sheep Mountain Uranium Project Comments" in your correspondence. Written comments will be accepted by fax, email, or letter for 30 days following the publication of the Notice of Availability in the ***Federal Register*** by the U.S. Environmental Protection Agency. All substantive comments will be reviewed and responded to in the ROD. Please provide your comments to:

Bureau of Land Management
Attn: Tom Sunderland
1335 Main Street
Lander, WY 82520-0589
Email: blm_wy_sheep_mountain_eis@blm.gov

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. The BLM will not consider anonymous comments. Comments, including names and street addresses of respondents, will be available for public review at the BLM Lander Field Office from 7:45 a.m. to 4:30 p.m., Monday through Friday, excluding federal holidays. Comments may be published as part of the NEPA document and other related documents. All submissions from organizations or businesses will be made available for public inspection in their entirety.

For further information concerning the document, please contact Tom Sunderland at (307) 332-8400.

Sincerely,

Richard Vander Voet
Field Manager
Lander Field Office

Sheep Mountain Uranium Project
FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS)

Project Name:	Sheep Mountain Uranium Project Environmental Impact Statement
Lead Agency:	U.S. Department of the Interior Bureau of Land Management Lander Field Office Wind River/Bighorn Basin District, Wyoming
Project Location:	Fremont County, Wyoming
Correspondence on this EIS:	Bureau of Land Management Lander Field Office Attn: Tom Sunderland 1335 Main Street Lander, WY 82520 Fax: 307-332-8444 Email: blm_wy_sheep_mountain_eis@blm.gov
Availability period:	Within 30 days of the date of the Notice of Availability published in the Federal Register

ABSTRACT

Energy Fuels Resources (USA) Inc. (Energy Fuels), a wholly owned subsidiary of Energy Fuels Inc., proposes to mine uranium from existing mining claims within the 3,611-acre Sheep Mountain Project Area, located within Fremont County, Wyoming within the Crooks Gap-Green Mountain Mining District. Energy Fuels would utilize conventional open pit and underground mining methods to remove uranium. Uranium has been historically mined in the Project Area, beginning in the early 1950s. The Project would involve three principal phases: Construction, Operations, and Reclamation. Within the 3,611-acre Project Area, a maximum of 929 acres would be disturbed on the surface throughout the anticipated 20-year Project schedule. Surface disturbance would be reclaimed and facilities would be decommissioned following completion of the Project.

A description of the Approved Project will be provided in the Record of Decision. Three alternatives were analyzed in detail in this Final EIS: the Proposed Action Alternative, the BLM Mitigation Alternative, and the No Action Alternative. The BLM Mitigation Alternative is the BLM's Preferred Alternative. The Proposed Action Alternative consists of Energy Fuels' Project as detailed in the Plan of Operations submitted to the BLM. The BLM Mitigation Alternative consists of Energy Fuels' Project with modifications to reduce the environmental impact, meaning that in addition to Energy Fuels' applicant-committed mitigation measures, additional mitigation measures are recommended by the BLM to further lessen the environmental effects of the Project. Under the No Action Alternative, the BLM would deny Energy Fuels' Project as proposed. Because the Project is located within the active Wyoming Department of Environmental Quality Land Quality Division Permit to Mine 381C, Energy Fuels would continue with certain reclamation obligations under the No Action Alternative. The No Action Alternative is analyzed in order to satisfy the requirements under NEPA.

Although the Final EIS is not a formal comment period, written comments on the Final EIS will be accepted by the Lander Field Office of the BLM throughout a 30-day availability period beginning on the date the United States Environmental Protection Agency publishes a Notice of Availability for this Final EIS.

Responsible Official for Final EIS: Wind River/Bighorn Basin District Manager

Executive Summary

Titan Uranium USA Inc., a wholly owned subsidiary of Titan Uranium Inc., submitted a Plan of Operations to the Bureau of Land Management (BLM) Lander Field Office (LFO) for the Sheep Mountain Project (Project) in Fremont County, Wyoming on June 16, 2011. On February 29, 2012, Energy Fuels Inc. acquired Titan Uranium Inc. and all of its subsidiaries are now wholly-owned subsidiaries of Energy Fuels Resources (USA) Inc. (Energy Fuels). Energy Fuels will continue as the owner and operator of the Sheep Mountain Project. Energy Fuels submitted a revised Plan of Operations to the BLM on July 9, 2012 and August 27, 2013. In January 2014, Energy Fuels submitted a revision application to the Wyoming Department of Environmental Quality-Land Quality Division (WDEQ-LQD) Permit to Mine 381C which was approved in July 2015. The Permit was made available to the BLM to provide additional details and clarifications to the August 2013 Plan of Operations.

The Project is located 8 road miles south of Jeffrey City, Wyoming, in Fremont County, in an area extensively mined starting in the 1950s and known as the Crooks Gap-Green Mountain Mining District. Energy Fuels is considering preparing an application for a U.S. Nuclear Regulatory Commission (NRC) Source and Byproduct Materials License for the proposed Heap Leach and Ore Processing Facility.

Energy Fuels proposes to mine uranium from existing mining claims within the 3,611-acre (~5.6 square miles) Sheep Mountain Project Area. Energy Fuels would utilize conventional open pit and underground mining methods to remove uranium. The Project would involve three principal phases: Construction, Operations, and Reclamation. The Project Area includes ~2,316 acres of federal surface, 772 acres under state ownership, and 523 acres of fee lands. Approximately 2,838 acres of federal mineral estate is included in the Project Area. Off-site processing at the Sweetwater Mill would occur on private lands entirely owned by Kennecott. Within the 3,611-acre Project Area, a maximum of 929 acres would be disturbed on the surface throughout the anticipated 20-year Project schedule. Surface disturbance would be reclaimed and facilities would be decommissioned following completion of the Project.

Purpose and Need

The Purpose and Need poses the question: What is the BLM decision to be made in response to the Proposed Action? In this case, the BLM decision to be made is whether or not the mining and processing of uranium would result in undue or unnecessary degradation to public lands. The need for a BLM action are to respond to Energy Fuel's proposal and to evaluate potential impacts that would result from implementing future plans and applications related to this proposal. The BLM has the responsibility for the laws and regulations regarding the availability of all locatable minerals on federal lands, including uranium, as specified under General Mining Law of 1872 as amended (30 United States Code - USC. §§ 22-54 and §§ 611-615), the original public land authority in 43 U.S.C. §§ 2, 15, 1201 and 1457, Title 43 of the CFR in Groups 3700 and 3800, and the Federal Land Policy and Management Act (FLPMA) of 1976 (43 USC 1701 et seq.). Under these laws, the BLM has the obligation to allow and encourage claim holders to develop their claims subject to reasonable restrictions including the restriction that undue or unnecessary degradation may not occur; see 43 CFR § 3809.411(d)(3).

Public Participation and Scoping

The BLM conducted public and internal scoping to solicit input and identify environmental issues and concerns associated with the Project. The public scoping process was initiated on August 23, 2011, with the publication of a Notice of Intent (NOI) in the Federal Register. In addition to the NOI, the BLM mailed 39 Dear Interested Party letters on August 26, 2011, notifying the public about the Project, the intent to prepare an EIS, and information about the scoping meetings. On August 23, 2011, the BLM issued press releases announcing their intent to prepare an EIS with information about the upcoming public scoping meetings, which were held in Lander, Riverton, and Jeffrey City using an open house format. The scoping period closed October 11, 2011.

The BLM received a total of eight comment submittals (e.g., letter or comment form) containing 60 individual comments during the public scoping period. Information gained during scoping assisted the BLM in identifying the potential environmental issues, alternatives, and mitigation measures. The process also provided a mechanism for narrowing the scope of issues so that analysis in the EIS could be focused on areas of high interest and concern. A majority of the comments were related to cumulative impacts, mitigation and monitoring, and potential impacts to range resources, water resources, and wildlife resources. There were also concerns and questions about the National Environmental Policy Act (NEPA) process.

In response to Energy Fuels' modification of the Plan of Operations in August 2013, the BLM issued a press release on September 25, 2013 providing notice of the availability of the modification. The BLM accepted comments on the modification for 30 days ending October 24, 2013. No comments were received.

The BLM conducted internal scoping to compile a list of resources potentially present in the LFO area to be considered in this EIS. Based on this list and public scoping, the following resources are discussed and analyzed in Chapters 3.0, 4.0, and 5.0 of this document:

- Climate and Air Quality
- Geologic Resources
- Mineral Resources
- Soils
- Water (Surface, Groundwater, Water Rights and Water Use)
- Invasive, Non-Native Species
- Vegetation
- Wetlands and Riparian Zones
- Special Status Species
- Wildlife
- Wild Horse and Burros
- Cultural Resources
- Paleontological Resources
- Tribal and Native American Religious Concerns

- Socioeconomics
- Environmental Justice
- Transportation/Access
- Public Health and Safety
- Recreation
- Livestock Grazing

The BLM has determined that the Project is in conformance with the BLM management plans and policies and is consistent with other federal and local land management plans and policies. As allowed under 36 CFR 800.8, the BLM has used the public comment process under NEPA to comply with the public consultation requirements of Section 106 of the National Historic Preservation Act (NHPA).

Public Comment on the Draft EIS

The Draft Environmental Impact Statement (DEIS) was published on January 16, 2015. A 45-day public comment period for the DEIS was held from January 16, 2015 to March 2, 2015. A summary of the written comments received during the public review period for the DEIS and responses to the comments are provided in Appendix 1-A to the FEIS. The BLM prepared the FEIS in consultation with cooperating agencies, taking into account public comments received to date.

Proposed Action and Alternatives

Chapter 2.0 provides a description of the Project alternatives and alternatives that were considered but eliminated from further consideration. In developing the alternatives, the BLM followed guidance set forth in the BLM-NEPA Handbook (H-1790-1), which provides for the development of a range of reasonable alternatives. Based on this guidance, the BLM developed the following alternatives for analysis in this EIS.

- The Proposed Action Alternative describes the proposed development and activities during Construction, Operations, and Reclamation described by Energy Fuels in the Plan of Operations for both on-site processing and off-site processing.
- The BLM Mitigation Alternative, which is the BLM's Preferred Alternative, consists of the Plan of Operations (the Proposed Action Alternative) with certain modifications of the Plan and additional mitigation measures with an emphasis on environmental resource conservation.
- The No Action Alternative assumes that approval of Energy Fuels' Sheep Mountain Uranium Project is denied based on it causing undue and unnecessary degradation of resources managed by the BLM. Existing infrastructure would be removed as required by existing permits, which include reclamation bonds.

Proposed Action Alternative. The Proposed Action would require 929.0 acres of disturbance of which 356.5 acres would be new disturbance and 572.5 acres were previously disturbed. Most of the new disturbance would be associated with the Congo Pit, the On-Site Ore Processing Facility, and the Hanks Draw Spoils Facility. Energy Fuels would utilize conventional open pit and underground mining methods to remove

uranium. The Project would involve three principal phases: Construction, Operations, and Reclamation.

The Construction phase of the Project would include the installation of various roads, buildings, utilities, and infrastructure. Prior to the start of Operations, access roads and utilities would be installed. Mine support facilities such as an administrative office, shop, warehouse, and guard house for the Congo Pit, would be constructed before mining could occur. The Ore Pad and conveyor system would be constructed near the entry point to the new proposed double entry decline to the Sheep Underground Mine. Construction of the double entry decline would be deferred up to 5 years after the start of the Congo Pit. The On-Site Ore Processing Facility consisting of a 40-acre Heap Leach Pad, Treatment Ponds, and Extraction Plant, and Processing and Packaging Plant would be constructed in the southwest corner of the Project Area.

The Operations phase of the Proposed Action would consist of mining uranium using conventional open pit (Congo Pit) and underground (Sheep Underground) methods. In addition to developing the Congo Pit for recovery of shallow ore reserves, Energy Fuels would rehabilitate and further develop the Sheep Underground Mine to be constructed for the recovery of deeper ore reserves. Ore from the Congo Pit and Sheep Underground mines would be transported via overland conveyor to the On-Site Ore Processing Facility and processed to produce uranium oxide (yellowcake) and/or transported for off-site processing at the Sweetwater Mill.

Reclamation would include: completing the backfill of the Congo Pit with overburden and spoils; plugging and abandoning ventilation shafts and access tunnels; decommissioning and demolishing the facilities and buildings; removing ponds and buried process piping from the processing facility; re-grading the surface to approximate original contours; replacement of topsoil; and revegetating the disturbed surface with a native plant species approved by the BLM and WDEQ-LQD. The reclamation plan is intended to return the lands disturbed by the Project to approximate original contours and re-establish pre-mine drainage patterns and densities. Because of the historic disturbance at this location, establishing pre-historic mining contours and conditions on all disturbed land would be difficult to achieve. However, with implementation of the reclamation plan, previously disturbed areas would be reclaimed into a safer, more natural environment by establishing through-flowing drainages, vegetation, and natural contours.

Based on currently identified resources, the Congo Pit would operate for approximately 8 years, and the Sheep Underground Mine would have a mine life of approximately 11 years. Ore processing would continue for a number of years after the mines are closed. Reclamation of the mines and associated facilities would commence immediately after mine closure, and reclamation of the On-Site Ore Processing Facility would commence as soon as processing is completed. The overall Project life is anticipated to be 20 years from initial construction to completions of final reclamation activities. The Project schedule is not anticipated to change due to off-site processing.

BLM Mitigation Alternative (Preferred Alternative). This alternative was developed in response to public and agency inputs collected during the scoping process in order to potentially reduce the environmental impacts of the Project. This alternative is similar to

the Proposed Action Alternative, in that conventional mining techniques would be utilized and uranium would be produced using heap leach and solvent extraction/ion exchange procedures. This alternative would utilize the same processes and take place over the same time period as the Proposed Action but with changes and mitigation procedures implemented to reduce and/or otherwise offset surface disturbance and potentially limit impacts to human health, safety, and the environment. Changes to the Proposed Action under this alternative would include: revisions to Energy Fuels' reclamation plan, and additional mitigation measures to protect soils, vegetation, wildlife, cultural, socioeconomic, transportation, and recreation resources.

No Action Alternative. Under this Alternative, the BLM would deny Energy Fuels' Plan of Operations as proposed. Therefore, the BLM would be denying the proponent's right to extract minerals on federal lands from their mining claims. The selection of the No Action Alternative may constitute a taking because it violates valid existing rights under the U.S. Mining laws and results in legal action by the proponent. The No Action Alternative is described in this document in order to satisfy the requirements under NEPA.

Energy Fuels is obligated to complete certain reclamation efforts under the existing WDEQ-LQD Permit to Mine 381C that would occur under any alternative including the No Action Alternative. Of the total 891.7 acres of reclaimed disturbance, 215.9 acres were reclaimed by the Wyoming Abandoned Mine Lands (AML) program and 675.8 acres were reclaimed by others. Approximately 420 acres are currently disturbed. Of this, 144 acres are currently bonded for reclamation under WDEQ-LQD Permit to Mine 381C and 190 acres were disturbed prior to existing mining and reclamation laws for which Energy Fuels has no reclamation obligation. The current mine reclamation commitments that would occur under the No Action Alternative include:

- Sheep Declines. The Big Sheep and Little Sheep unfinished declines would be removed. Spoil facilities would be removed and the area around the declines would be re-graded and seeded. The declines would be sealed by installing a permanent concrete bulkhead backfilled to the surface.
- Access roads. The main road to the Sheep Declines Shop and McIntosh Pit up to the Sheep II Shaft would be reclaimed. Additionally, the Hanks Draw Road up to the Sheep I Shaft would be reclaimed.
- Sheep I and II Shafts. Energy Fuels has placed a permanent surface cap over both the Sheep I and Sheep II shafts that allows for monitoring, ventilation, and dewatering. The Sheep II Shaft area has been reclaimed to the standards consistent for mining, but additional work would be done under the No Action Alternative (final regrading and seeding). Sheep I spoils would be removed and the site reclaimed.
- The McIntosh Pit and Shops. In 2011, the mine shops were demolished, all material removed, and the solid waste facility was excavated and removed. Sellable scrap metal was salvaged and all other solid waste was properly disposed of off-site at the Fremont County facility.

WDEQ-AML began work on the McIntosh Pit in 2014 (WDEQ-AML Project 16-O), and expects to complete work by 2020. Originally, Energy Fuels had a reclamation obligation for 105 acres under WDEQ-LQD Permit to Mine 381C to reduce a portion of the pit highwalls. For more efficient coordination of the work, Energy Fuels' bond obligation for this work was addressed through a cooperative agreement between WDEQ-AML, Energy Fuels, and WDEQ-LQD.

Alternatives Considered but Eliminated from Detailed Analysis: The BLM considered the following alternatives that were eliminated from detailed impact analysis in this EIS:

- In-situ recovery (ISR) mining was not analyzed in detail because there are extensive historical underground and reclaimed open pit workings in the Project Area, and application of ISR methods would not be practical technically or consistent with State of Wyoming requirements.
- Locating the on-site processing facility at the Paydirt Pit was not analyzed in detail due to more rugged topography and because the proposed location overlaps more previously disturbed lands.
- Conventional on-site milling would require additional capital costs and increase operating costs due to increased labor and power requirements to operate the crushing, leaching, and counter current decantation (CCD) circuits. Because of the relative close location of an existing and fully permitted conventional mill (the Sweetwater Mill), Energy Fuels did not wish to pursue constructing an entirely new mill to complete the same milling activities that could occur at the Sweetwater Mill.
- Ablation is a new technique that separates uranium-bearing minerals from its host rock using high pressure water nozzles. This technique has not undergone enough testing to fully understand the associated impacts or cost effectiveness. Due to the limited data available, ablation is not analyzed as an alternative in this EIS.
- Deep well injection was not analyzed in detail as a management method for liquid waste because the focus is on liquid process wastes potentially containing licensed material. Both evaporation and deep well injection disposal methods require the use of holding ponds or storage tanks prior to disposal and both methods are assumed to be equally durable and protective. There is minimal incremental benefit between the evaporative/heap disposal method and deep well injection.
- Alternate access routes to the Sweetwater Mill were not analyzed in detail because the routes were much longer that the proposed route, because they would require travel on US Highway 287 with a higher possibility for human contact and collisions, and because they provided no overall benefits to greater sage-grouse over the proposed route.
- The use of ablation techniques that separate uranium-bearing minerals from its host rock using high pressure water nozzles was not analyzed in detail due to limited available data.

- Deep well injection of liquid process wastes generated on-site was not analyzed in detail due to the additional requirement (and associated cost) of injection wells and because there is minimal incremental benefit between the evaporative/heap disposal method and deep well injection..
- The alternative of a tailings disposal cell in the Congo Pit was not analyzed in detail because this alternative would result in less potential groundwater protection in the event of future liner failure.
- Disposal of excess water from dewatering into the Sheep Underground Mine workings was considered as an alternative to treatment and surface disposal of the water. Groundwater modeling indicated such injection would result in increased groundwater inflow rates into the Congo Pit, negating the efforts to dewater the pit. Therefore, this alternative was eliminated from further consideration.

Affected Environment

Chapter 3.0 of the EIS describes the affected environment of the Sheep Mountain Project Area for each of the resources identified during internal scoping and listed above. These resources are present within the Project Area and provide the basis to address substantive issues of concern brought forward during internal and public scoping. The information presented in Chapter 3.0 provides quantitative data and spatial information where appropriate to the resource that serves as a baseline for comparison of the direct, indirect, and cumulative impacts of each of the alternatives.

Environmental Consequences

Chapter 4.0 of the EIS describes the environmental effects of implementing the alternatives on the affected environment as described in Chapter 3.0. The chapter is divided into subsections addressing the specific incremental impacts for each of the resources identified during internal scoping listed above. The resource-specific effects of the alternatives are evaluated quantitatively and qualitatively, as appropriate, based on available data and the nature of the resource analyzed. A comparison of the mitigation measures and a comparison of the impacts associated with the three alternatives are provided in Tables 2.4-1 and 2.7-1 of the EIS.

Cumulative Impacts

Cumulative impacts from past, present, and reasonably foreseeable future actions are presented in Chapter 5.0. For each resource, the Cumulative Impact Analysis Area (CIAA) was developed appropriate to the geographical extent of anticipated cumulative impacts. For some resources (e.g., paleontology, soils, and vegetation), the CIAA is the same as the Project Area. For other resources (e.g., socioeconomics and air quality), the CIAA includes a larger area within which cumulative impacts could occur.

Projects considered in the cumulative impact analysis include the following:

- Past disturbance associated with historic uranium mining activities;
- Existing disturbance from on-going projects associated with mineral exploration, mining, reclamation of historic mining activity under the Wyoming AML program,

oil and gas development, and long-term management of uranium tailings under the U.S. Department of Energy (DOE) Legacy Management program; and

- Future disturbance from proposed project activities associated with mineral exploration, oil and gas development, wind energy projects, and reclamation of historic mining activity under the Wyoming AML program.

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Chapter 2 Project Alternatives

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List of Abbreviations and Acronyms

ΔANC	change in acid neutralizing capacity
Δdv	delta-deciviews
μg/m^3	micrograms per cubic meter
μg/l	micrograms per liter
μmhos/cm	micromhos per centimeter
μR/hr	microRoentgens per hour
AADT	Annual Average Daily Traffic
ACECs	Areas of Critical Environmental Concern
ACS	American Community Survey
AEA	Atomic Energy Act
ALARA	as low as (is) reasonably achievable
AM	air monitor
AML	Abandoned Mine Lands
amsl	above mean sea level
ANC	acid neutralizing capacity
ANFO	ammonium nitrate and fuel oil
AO	Authorized Officer
APD	Application for Permit to Drill
APE	Area of Potential Effect
APLIC	Avian Power Line Interaction Committee
AQD	Air Quality Division
AQRVs	Air Quality Related Values
AQTSD	Air Quality Technical Support Document
AR5	Fifth Assessment Report
ARI	aquatic resources inventory

ARMPA	Approved Resource Management Plan Amendment
ATVs	all-terrain vehicles
AUM	animal unit month
BBS	Breeding Bird Survey
BCC	Birds of Conservation Concern
BCR	Bird Conservation Regions
BEA	Bureau of Economic Analysis
BGEPA	Bald and Golden Eagle Protection Act
BKS	BKS Environmental Associates, Inc.
BLM	Bureau of Land Management
BLS	Bureau of Labor Statistics
BMPs	Best Management Practices
BRS	BRS Engineering
BSCs	Biological Soil Crusts
$CaCO_3$	calcium carbonate
CAMx	Comprehensive Air Quality Model with Extensions
CASTNET	Clean Air Status and Trends Network
CCD	Census County Division
CD-C	Continental Divide-Creston
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CIAAs	cumulative impact analysis areas
cm	centimeter
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
C_r	concentration ratios
CR	County Road
CY	cubic yards
DATs	deposition analysis thresholds
dBA	decibel
DOE	United States Department of Energy
DOI	United States Department of the Interior
dv	deciview
DVC	base case or current year
DVF	future year
EC	electrical conductivity
EIS	Environmental Impact Statement
EMT	emergency medical technician
Energy Fuels	Energy Fuels Resources (USA) Inc.
EO	Executive Order
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know
ESA	Endangered Species Act
ESD	Ecological Site Description
^oF	degrees fahrenheit
FAR-D	Functional at Risk and in a downward trend
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FLAG	Federal Land Managers' Air Quality Related Values Work Group
FLMs	Federal Land Managers
FLPMA	Federal Land Policy and Management Act

FR	Federal Register
ft/yr	feet per year
ft^2/day	square feet per day
FWS	United States Fish and Wildlife Service
GCL	geosynthetic clay liner
GHGs	greenhouse gases
GHMAs	General Habitat Management Areas
GHS	Global Harmonized System
GMCA	Green Mountain Common Allotment
gpd	gallons per day
gpm	gallons per minute
GWP	global warming potential
H	Horizontal
H_2O_2	hydrogen peroxide
H_2SO_4	sulfuric acid
HA	hunt area
HAPs	hazardous air pollutants
HDPE	high density polyethylene
HMAs	herd management areas
HNO_3	nitric acid
HUD	U.S. Department of Housing and Urban Development
IM	Instruction Memorandum
IMPROVE	Interagency Monitoring of Protected Visual Environments
IPCC	Intergovernmental Panel on Climate Change
IPEOC	International Petroleum and Exploration Operating Corporation
ISL	in-situ leaching
ISR	in-situ recovery
IX	ion exchange
JCVFD	Jeffrey City Volunteer Fire Department
K	potassium
Kennecott	Kennecott Uranium Company
kg/ha-yr	kilograms per hectare per year
km	kilometers
kV	kilovolts
LCI	Lost Creek ISR, LLC
LFO	Lander Field Office
LHDs	load, haul, and dump
Lidstone	Lidstone and Associates, Inc.
Lidstone and Wright	Lidstone and Wright Environmental Services
LM	Legacy Management
LQD	Land Quality Division
LRMP	Lander Resource Management Plan
LRP	Limited Reclamation Potential
LTA	LTA, Inc.
LVFD	Lander Volunteer Fire Department
MATS	Modeled Attainment Test Software
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mgd	million gallons per day
mg/l	milligrams per liter
MLRA	Major Land Resource Area
mmhos/cm	micromhos per centimeter
MMIF	Mesoscale Model Interface Program
MMPA	Mining and Mineral Policy Act
MOU	Memorandum of Understanding
MPB	mountain pine beetle

mph	miles per hour
mrem	millirem
m/s^2	meters per square second
MSDS	Material Safety Data Sheets
MSHA	Mine Safety and Health Administration
N	nitrogen
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
$NaClO_3$	sodium chlorate
NADP	National Acid Deposition Program
NASA	National Aeronautics and Space Administration
NCA	U.S. National Climate Assessment
NEPA	National Environmental Policy Act
NESHAPs	National Emission Standards for Hazardous Air Pollutants
NH_4	ammonium
NHPA	National Historic Preservation Act
NHTs	National Historic Trails
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_3	nitrate
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NORM	Naturally Occurring Radiological Materials
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NR	Not Reported
NRC	United States Nuclear Regulatory Commission
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSS	Native Special Status
NTMC	National Trail Management Corridor
NTN	National Trends Network
NTU	Nephelometric Turbidity Units
NWI	National Wetlands Inventory
O_3	ozone
OHV	off-highway vehicle
OSHA	Occupational Health and Safety Administration
P	phosphorus
PAR	Pesticide Application Records
PAWMA	Popo Agie Weed Management Area
Pb	lead
pCi/g	picocuries per gram
pCi/l	picocuries per liter
PCW	Power Company of Wyoming
PDO	property damage only
PFC	Proper Functioning Condition
PFYC	Potential Fossil Yield Classification
PGA	peak ground acceleration
PGM	photochemical grid model
PHMAs	Priority Habitat Management Areas
PILT	payment in lieu of taxes
PLS	Pregnant Leach Solution
$PM_{2.5}$	particulate matter greater than 2.5 microns in effective diameter
PM_{10}	particulate matter greater than 10 microns in effective diameter
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation

ppb	parts per billion
PPE	Personal Protective Equipment
ppm	parts per million
Project	Sheep Mountain Uranium Project
PRPA	Paleontological Resources Preservation Act
PSD	Prevention of Significant Deterioration
PUBh	Palustrine Unconsolidated Bottom
PUP	Pesticide Use Proposal
PUR	Pesticide Use Report
PWS	Public Water Source
RCRA	Resource Conservation and Recovery Act
Real West	Real West Natural Resource Consulting
rem	roentgen equivalent man
RFD	reasonably foreseeable development
RFFAs	reasonably foreseeable future actions
RFO	Rawlins Field Office
RHR	Regional Haze Rule
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
RPA	Roscoe-Postle Associates, Inc.
RV	recreational vehicle
RVFD	Riverton Volunteer Fire Department
S	sulfur
SARs	sodium adsorption ratios
SARA	Superfund Amendment and Reauthorization Act
SFAs	Sagebrush Focal Areas
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMCLs	secondary maximum contaminant levels
SO_2	sulfur dioxide
SO_4	sulfate
SOC	Species of Concern
SOPs	Standard Operating Procedures
SOR	secondary oil recovery
SR	Stratigraphic rex, LLC
SUGMA	Small and Upland Game Management Areas
SVR	Standard Visual Range
SWAP	Source Water Assessment Program
SWPPP	Stormwater Pollution Prevention Plan
SX	solvent extraction
TDS	Total Dissolved Solids
TEDE	total effective dose equivalent
TENORM	Technically Enhanced Radiological Materials
tg/y	teragrams per year
Titan	Titan Uranium USA Inc.
TMDL	Total Maximum Daily Loads
tpy	tons per year
TSS	total suspended solids
U_3O_8	uranium oxide
UBC	Uniform Building Code
UIC	Underground Injection Control
UMTRCA	Uranium Mill Tailings Radiation Control Act
UPC	Uranium Power Corp.
USACE	U.S. Army Corps of Engineers
USC	United States Code

USCEAR	United Nations Committee on the Effects of Atomic Radiation
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USECC	U.S. Energy-Crested Corp.
USGS	United States Geological Survey
V	Vertical
VIEWS	Visibility Information Exchange Web System
VOCs	volatile organic compounds
VRM	Visual Resource Management
WAAQS	Wyoming Ambient Air Quality Standards
WAQSR	Wyoming Air Quality Standards and Regulations
WDAI	Wyoming Department of Administration and Information
WDEQ	Wyoming Department of Environmental Quality
WDWS	Wyoming Department of Workforce Services
Western Nuclear	Western Nuclear, Inc.
WestJumpAQMS	West-wide Jump Start Air Quality Modeling Study
WGFD	Wyoming Game and Fish Department
WHDP	Wyoming Housing Database Partnership
WMA	Waterfowl Management Area
WNV	West Nile Virus
WOGCC	Wyoming Oil and Gas Conservation Commission
WOSLI	Wyoming Office of State Lands and Investments
WPBR	white pine blister rust
WPCD	Fremont County Weed and Pest Control District
WQD	Water Quality Division
WRAP	Western Regional Air Partnership
WRCC	Western Regional Climate Center
WRF	Weather Research and Forecasting
WSAs	Wilderness Study Areas
WSEO	Wyoming State Engineer's Office
WYDOT	Wyoming Department of Transportation
WYNDD	Wyoming Natural Diversity Database
WYPDES	Wyoming Pollutant Discharge Elimination System
WY	Wyoming